Claims

[c1]   1. A system for approving a card transaction using a card
of a cardholder comprising:
a digital signature generated by a signature generation
section of a cardholder apparatus based on transaction
data and a reference code of the cardholder which
changes for each transaction by the cardholder; and
a verification section for receiving a request for approval
message including the digital signature and verifying the
received digital signature to thereby approve the trans-
action.

[c2]   The system of claim 1, wherein the transaction data in-
cludes a transaction amount.

[c3]   The system of claim 2, wherein the transaction data fur-
ther includes account information of the cardholder.

[c4]   The system of claim 2, wherein the reference code is ei-
ther issued from the issuer or generated at the card-
holder"s apparatus.

[c5]   The system of claim 2, wherein the transaction data fur-
ther includes merchant identification information.

[c6]   The system of claim 2, wherein the transaction data further includes point-of-sale terminal identification information.

[c7]   The system of claim 1, wherein the generation the signature is done through authenticating the cardholder.

[c8]   The system of claim 1, further comprising a request for approval message of the transaction including the generated digital signature.

[c9]   The system of claim 1, wherein the card includes a card number comprising an official identification number such as the social security number of the cardholder.

[c10]   The system of claim 1, wherein:
the signature generation section further comprises a combination code and a second digital signature produced by combining the digital signature and the reference code based on the combination code;
and the verification section is also for receiving the second digital signature and separating the received second digital signature to recover the digital signature and the reference code based on the corresponding combination code for then verifying the digital signature to thereby approve the transaction.

[c11]   The system of claim 10, wherein the combination code is

electronically transmitted from a card issuer apparatus to the cardholder"s apparatus by a transmission means selected from the group consisting of: a wireless short messaging service (SMS), a wireless multimedia messaging service (MMS), and e-mail.

[c12] The system of claim 1, wherein the card is a credit card.

[c13] The system of claim 1, wherein the card is a debit card.

[c14] The system of claim 1, wherein the card is in the form of an electronic chip exchanging information with the cardholder apparatus.

[c15] The system of claim 1, wherein the verification section is part of a card issuer apparatus controlled by a card issuer.

[c16] A method for approving a card transaction between a cardholder and a seller comprising the steps of: acquiring transaction data; acquiring a cardholder reference code, wherein the reference code changes for each transaction; generating a digital signature based on the transaction data and the reference code; transmitting a request for approval message from the seller; and verifying the digital signature to thereby approve the transaction.

[c17]   The method of claim 16 wherein the step of transmitting the request for approval message includes transmitting the generated digital signature in the request for approval message.

[c18]   The method of claim 16, wherein the transaction data includes a transaction amount and the generating step includes generating the digital signature based on the transaction amount and a reference code of the cardholder.

[c19]   The method of claim 18, wherein the generating step includes combining the generated digital signature and the reference code based on a combination code.